When we arrived at Turner Lake on Monday, May 23, 1977, there was still ice on the very upper end of the lake and snow was about 3 feet deep in front of the cabin. Weather all week was beautiful, sunshine and blue skies. By Friday the snow was nearly gone.

Turner Lake is in an awesome setting with rugged mountains, glaciers, and numerous waterfalls. There was no man-made sound to be heard except our own. No airplanes flew over or could be heard except the one that came to get us.

We were the first into the lake and had the lake to ourselves during the whole period. There were no biting bugs out. Birds were singing and setting up their territories.

The boats and facilities at both cabins are good. The west Turner Lake cabin has a big rock fireplace and is more roomy and comfortable, but the east Turner Lake cabin has complete solitude.

May 25-27, 1977 Bird List. Turner Lake.

Hermit thrush Dipper Winter wren Tree swallow Fox sparrow Orange-crowned warbler Varied thrush Raven

Common loon Pine siskin Robin Mallard Vaux swift Barn swallow Spotted sandpiper Wilson's warbler Stellers jay Bald eagle

Ruby-crowned kinglet Blue grouse

Audubons warbler - recorded with tape recorder good to look at main on main in inter-

Harlequin duck - pair on main inlet

And more awesome scenery. The more rugged mountains and glaciers are at the east end.

Fish of Turner Lake include cutthroat, Dolly Varden, kokanee, and cottids. Cutthroat in the 4-5 pound class are commonly mentioned in the cabin log. We saw some but didn't catch any on first trip. Largest caught was 19 1/4 inch.

Dolly Varden seem to be distributed along bottom. Fourteen (14) nice 10-inch fish were caught in a large overnight minnow trap set. They appeared in good shape and were silvery colored.

No kokanee were caught, but they were found in cutthroat stomachs. I believe you should have flies and/or single eggs for kokanee. The cabin log refers to kokanee fishing near the waterfalls.

Flew in to Turner Lake about 7 p.m. Set up camp. Emptied snow out of U.S. Forest Service boat. Ate steaks. Blue grouse (hooters) resounding in trees behind cabin.

Dick, Dennis, and I at upper cabin. It is old with a good wood stove. Cabin is tight. Dennis caught three 10-12 inch cutthroat in evening right in front of camp. Not too much sign of wildlife except Dennis found a day-old bear track in the creek behind camp. Everyone seems to think Turner is a very deep lake. We'll find out tomorrow as we plan to sound the bottom and look for kokanee.

The cabin log refers to catches of rainbow, cutthroat, and Dolly Varden. I don't think there are any rainbow. Cutthroat seem to get good size. They must feed on kokanee.

Ice has just gone out of lake and snow is abundant around cabin. I see ice at the upper inlet of the lake but water temperature near cabin in shallows was 90°C when we got here this afternoon.

The valley around the cabin is large spruce open understory with some devils club and alder. Porcupine was seen at woodshed by cabin. Beaver are supposed to be in inlets.

Terrain is really rugged around lake with rock cliffs.

Turner is one of the most popular if not the most popular lake in the Juneau area with excellent cutthroat fishing. It will be interesting to see if the water chemistry is different in this lake when compared to other cutthroat lakes.

There is a much fancier cabin near the outlet. I guess there is a lot of bear activity there in the fall when pink salmon are below the falls.

There is some talk of using Turner Lake as a sockeye nursery or laddering the falls. I am skeptical of this potential as there are already kokanee cropping plankton from the lake.

To my knowledge no one has done any work on Turner Lake. Kokanee are supposedly a good population. Elliott says they will gather around waterfalls in midsummer and bite on single eggs. They evidently aren't too large and aren't really sought after as a sport fish.

May 24, 1977

Light rain in morning. Sun came out midmorning. High cumulus clouds with light breeze. Good morning for sounding.

Sounding Turner Lake. Maximum depth in Turner Lake about 710 feet deep.

Sinking gill net set in 120-160 feet of water on bottom across from cabin at 6:20 p.m. Sounding in this area indicated layer of something above bottom.

Large minnow trap set at outlet of main inlet at 7:05, approximately 10 m deep.

Dennis Hubbart caught 49 cm male cutthroat in lake near main inlet. Fish ripe, ready to spawn in about two weeks. Dick and I saw five large trout just off inlet when we were taking a break from sounding. Probably spawners getting ready to go upstream in main inlet.

Sounding didn't really show much for fish populations. We could see a layer of something just off bottom, which may or may not be fish. I would like to run a series of soundings from mid-day to midnight at two-hour intervals. Should be same transect run in same direction so you could tell if fish were moving off bottom in evening or ??? Late summer survey may be needed to collect kokanee.

May 25, 1977

8:30 a.m. Picked up gill net and large minnow trap near cabin.

Gill net catch - two Dolly Varden

DV - 256, female, stomach - diptera larvae, rock, spruce needles; otolith - 218, female, stomach - chironomid larvae; otolith

Minnow trap catch - 53 sculpin, 6 Dolly Varden

DV - 211, female, stomach - empty; otolith

- 244, male, stomach - insects; otolith

- 245, male, stomach - empty; otolith

- 223, male, stomach - insect larvae ?; otolith

- 212, female, stomach - insect larvae; otolith

- 139, male, stomach - mayfly and caddis larvae; otolith

Pulled large minnow trap near main inlet at 10:20 a.m.

Catch: 10 cottus asper; 1 cutthroat - 340, female - immature, 2 fish in stone in the stone in th

Set drift nets in main inlet 11:05 a.m.

Minnow traps set

No. 1 - 11:20 behind big rock in lower stream

No. 2 - Slough-like area about 1/4 mile upstream 11:45 a.m. Pulled minnow traps No. 1 and No. 2 at about 2:36 p.m. - 0 catch

May 25, 1977. Stream survey main inlet.

One picture taken in lower 1/4 mile. Shows typical section of stream. Valley floor very flat. Alder along 50% of bank. Meandering stream with a few root wads and big rocks, but substrate mostly gravel and sand. Very unstable, as evidenced by constantly shifting sand and round pebbles in stream. Water temperature 4°C . No fish seen in lower section.

Alder just leafing out and quite a lot of snow along bank, but river is probably 2 feet below high water.

Next trip should include streamflow.

Cond.

Depth

0

30

May 26, 1977. Turner Lake. Rod temperature surface 60C. Sunny and calm.

Temperature

0 m	15 7.0
1	15 7.0
3	15 7.0
5	15 7.0
10	18 5.8
12	18 5.0
14	18 4.6
16	18 4.6
7	7.0
8	6.5
9	6.3
11	5.2
Depth	Alkalinity
0 m	0.27 = alkalinity - titrate, 50 ml water with 0.2 N acid

30 m Vertical plankton haul 1/2 m diameter, 3 m long net. 153 micron net. Visibility - 14 m.

Picked up drift nets 11:30 a.m. Picked drift nets 1:30-2:30 p.m. Picked lakeshore insects 2:30-3:30 p.m. Picked stream insects 3:30-4:00 p.m.

0.31

0.32

Two dredge samples 4-4:30 p.m.

Dredge No. 1 - 10 m - sand detritus in front of each cabin inlet,

5 chironomids, 1 oligochaeta.

Dredge No. 2 - 18 m - loon shit and clay, 1 chironomid, 1 sphaerid.

Set two large minnow traps in front of cabin at 3:30 p.m.; one suspended 1 m below surface, one on bottom.

Pulled minnow traps May 27, 1977, 9:30 a.m. Nothing in floater. Bottom traps at 20 m caught 6 sculpin; 14 Dolly Varden at 18.0-26.0 cm. May 25, 1977. Stream survey main inlet.

One picture taken in lower 1/4 mile. Shows typical section of stream. Valley floor very flat. Alder along 50% of bank. Meandering stream with a few root wads and big rocks, but substrate mostly gravel and sand. Very unstable as evidenced by constantly shifting sand and round pebbles in stream. Water temperature 40C. No fish seen in lower section.

Alder just leafing out and quite a lot of snow along bank, but river is probably 2 feet below high water.

Next trip should include streamflow.

May 26, 1977. Turner Lake. Rod temperature surface 60°C. Sunny and calm.

<u>Depth</u>	Cond.	Temperature			
0 m 1 2 5 10 12 14 16	15 15 15 15 18 18 18	7.0 7.0 7.0 7.0 5.8 5.0 4.6 4.6			
7 8 9 11		7.0 6.5 6.3 5.2			

<u>Depth</u>	<u>Alkalinity</u>							
0 m 0 30	0.27 = 0.31 0.32	alkalinity -	titrate,	50 ml	water	with	0.2	N acid

30 m Vertical plankton haul 1/2 m diameter, 3 m long net. 153 micron net. Visibility - 14 m.

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- 1. Upper end of Turner Lake from cabin.
- 2. East Turner camp.
- 3. Looking down center of Turner Lake.
- 4. Looking up main inlet (south side center of lake) from across lake.
- 5. Main inlet valley.
- 6. Main inlet delta looking back across lake.
- 7. Looking up main inlet. Note alder flats. Very little willow. Creek about 40 feet wide, 1-1.5 feet deep. Gravel and sand substrate looks great for spawning cutthroat. Inlet should be walked with minnow traps and fishing rod. Bottom material mainly less than 2 inches, cover limited in lower section.
- 8. Turner Lake cabin at outlet. 0.8 mile trail to salt water from here. Cabin is built from log with rock chimney and closable fireplace. Has nice big log bunks.
- 9. First slough-like hole up from delta about 350 yards.
- 10. Two miles upstream habitat changes to larger rock. Creek channeled inlets spread out. Fast water.
- 11. Upstream portion of main inlet boulder and fast water area. Don't know how far this extends as we elected not to walk any further. This ends the area that looks like excellent sockeye spawning area.
 - Stream really doesn't show much potential for cutthroat rearing. No beaver ponds were seen that were active. No fresh beaver sign at all. Freshwater cutting appeared to be last year or earlier.
- 12. Lower portion of main inlet (part Bob and I walked). Looking back across lake.
- 13. Upriver "unexplored area". The area upstream is probably accessible to fish for another 1-1.5 miles. This would give about 3.5 miles accessible to fish.
- 14. Extra view of downstream portion of main inlet.
- 15. Waterfall halfway between main inlet and outlet.
- 16-18. View of upper end of lake from east Turner Lake.
- 19. View of east Turner camp.
- 20-22. Left side of east end of lake.

- 23. View from east end looking at east Turner camp and valley.
- 24. View of east end of lake.
- 25. View of east end of lake from east Turner cabin.